Assistant Entemologist Dedge on the Destructive Pests.

THE LOCUST OF THE PAST.

The History, the Food and the Enemies of the Medern Insects.

METHODS OF DESTROYING THEM.

Professor Taylor on the Uses of the Grasshopper.

WASHINGTON, June 22, 1875. TO THE EDITOR OF THE HERALD;-

For many weeks this destructive pest has been s topic of absorbing interest to the people of the whole country, and with all that has been written on the subject or published in the columns of the newspapers, there is much that the intelligent reading public desire to know concerning the insect. The daily press has furnished us with graphic accounts of its terrible ravages, and has given us from day to day reports by wire from invaded territory, but little has been said concerning the history of the insect, though there are many persons having little or no idea of the kind of enemy with which our Western farmers have to contend beyond the mere fact that it is some kind of a grasshopper. LOCUSTS IN HISTORY.

If we go back to history for the first accounts of locust plagues we must go back to Biole times, and, indeed, it was probably an old story even then, for the accounts of the terrible ravages of these devouring armies in the pages of Holy Writ are as true pictures of the scenes of the last lew weeks in our own country as they doubtless were of the terrible scourge in Egypt. Their dev astations are recorded in the history of many nations, from Bible times down to the present, and the numberless accounts of their direful presence in many parts of Asia, Africa and Southern Europe are only too well authenticated-in fact, the history of their ravages in the Old World is full and com plete. We have been speaking of these insects merely as "locusts," without going into detail. The locust of the Old World, however, differs very much from those we are considering, though the general natural history is the same. The locust of Scripture is probably the Acridium perigrinum, as this insect is now found in Asia and Africa, though in Europe the devasting or migratory species is Edipoda migratoria.

The earliest record of locust injuries in America is given by Mr. Riley as about the year 1632, when they visited Guatemala. The Jesuit missionaries of California have also left records of visitations in that State for numbers of years between 1722 and 1765; and in the present century they are reported in the same State in 1827, 1822, 1834, 1838, 1846 and 1855, though in all probability the insect in this instance is a different species from the one operating east of the Rocky Mountains. The bistory of the Red River settlements, according to Mr. J. W. Taylor, presents a similar proportion of years of suffering and exemption, the locusts baving appeared in 1818 and 1819, then a long interval to 1857 and 1858, then to 1864 and 1865, 1867 to 1870, and 1871 to 1875—the last seven years having been peculiarly unfortunate. In Minnesota, since its settlement, the years 1858-57. 1865, 1873 and 1874-5, are marked as grasshopper years. It is probable that all these early swarms were more or less destructive in Kausas and the northwest country at the same time. They appeared in Texas in 1845 and 1849, and Mr. Taylor, in an article on the subject in one of the Smitusonian reports, names the year 1855 as a general grasshopper year over the whole Western Continent, including parts of Mexico and Central America. The years 1866 and 1867 were marked locust years in Kansas, Nebraska and adjacent ierritory; in 1807 they were also very destructive in Utab. Mr. Waish, who studied up the grasshopper invasion of 1867, shows conclusively that after the departure of the grasshoppers that had hatched from eggs deposited the previous year a fresh host of invaders descended upon the fertile plains of the Mississippi from the Rocky Mountains. the preceding one. The dates given are August 25 to September 30, while the swarms hatched from eggs laid the year before matured and took wing at least forty-two days earlier.

For 1860, 1870 and 1872 and 1873 they again appeared, though the next locust year of importance was last season, when, as your readers are well aware, hundreds of homes were made desolate, farms were laid waste, and famine almost ensued; and had not the widespread calamity proved a autional one and the sympathies of the people been enlisted untold suffering and death would have been the consequence. The damage inflicted upon Coloraco, Nebraska, Kansas and portions of Wyoming, Dakota, Minnesota, Iowa, Missouri and a few other States and Territories has been es timated at nearly \$50,000,000 for that season, when there was a fresh invasion from the Rocky Mountains in addition to the hosts already present from the eggs laid in 1873.

in 1875 they again appear ever the same terri-tory, the eggs deposited in 1874 hatching out by the million, notwithstanding the cold winter, which seemed to encroach far into spring, and until the present time they have been ravaging the country pretty much in the same manner as inst year, though it has been boped that early migration would yet give time for replanting and for bountiful crops.

NATURAL BISTORY. The Western migratory locust, or "hateful grass hopper," as it is sometimes called, is an insect measuring from an inca and a quarter to an inca and a half in length from head to up of wings, which extend over or beyond the abdomen from an eighth to a taird of an inch. A description of the insect is hardly necessary, as it very closely resembles the common little red-legged grasshopper so plentitui in fields and meadows in the summer and fall and known in scientific parlance as Caloptenus femur-rubrum, the principal difference being the length of wings. In fact, the Western migratory species belongs to the same genus, and is named Caloptenus spretus. As there are many other grasshoppers found in the region inhabited these insects it is not at all uncommon for "Eastern friends" to receive monstrous samples of hoppers as the destructive species, and we have even received by mail very large species be longing to a group that never have wings, and therefore cannot be migratory, as specimens of the kind of insects that are devouring the land. What they lack in size, however, they make up in numbers, and persons that never have seen a "visitation" can form no idea of the extent of their swarms, and would hardly credit the statement that they had been seen dristed against a grain shed three fast deep.

Of their Rocky Mountain history nothing of im portance is known. They do live in the mountains, however, and are found far up the peaks, even to the snow range, where they had been saught in attempting to fly over. I have been informed that these insects may be frozen stiff, so that they may be broken like pipe stems, yet their fellows in the same struction can be thawed out

and in a short time will'be as lively as ever. The manner in which they deposit their eggs is as follows:-The temale, with the ovipositor at the end of her abdomen, forms a nole in the son, generally about on men deep, the horn-like tips enabling her to do this by a sort of drilling process in a short space of time, usually but a lew minutes. The insect prefers bare sandy places or hard dry ground for this purpose, but at the same time will oviposit in other locations. The eggs are deposited, side by side in a mass to the number of 30 to 100. They are slender, yellowish. Alightly curved, and measure about one fifth or on men in .e., th, and when fresh are sult and motal.

deposited in moist or wet ground.

When they first batch they are white or grayish in color and very tender, and in the beginning of spring the cool nights often destroy many of

THEIR FOOD. To begin with, they eat nearly everything that can be eaten and rarely ever leave until the supply is exhausted. They have their preferences, however, and delight in anything acid or sour, and even hot and bitter substances, as tobacco, pepper, &c., are much to their taste. The tender vegetation is always destroyed first, but it is a little singular that sweet substances, as green corn, sorgbum and the like are not attacked until the others are consumed. Riley says, "Vegetables and cereals are their main stay: turnips, carrots, capbage and radishes are all devoured with avidity, beets and potatoes with less relish, though sometimes the tubers in the ground no not escape. Onions they are very partial to; of leguminous plants the pods are preserred to the leaves, and cucurbitaceous plants also suffer most in the fruit. Of the cereals corn is their favorite, and if young and tender is devoured to the ground. They are fond of buckwheat and flax, but seldom touch castor beans. Next to vegetables and cereals they relish the leaves of fruit trees. Those of the peach are generally left untouched, though the fruit is eaten to the stone." Nor do they cease when the supply of green food is exhausted, as they are known to cat the dry bark of trees, the dry lint from a well seasoned fence plank, dry leaves and paper, cotton and woollen fabrics, and they have been seen even upon the backs of a flock of sheep devouring the wool. Dead animals are sometimes food for them, and if one of their own number becomes disabled it is soon finished by its hungry brethren. They show a marked preserence for wilted or unhealthy plants.

OTHER SPECIES. In the East we have a little grasshopper quite common to our fields, called the "red-legged locust" (Culoplenus femur-rubrum), which at times is quite destructive, though never as much so as our Western species, and it is not migratory. This species so closely resembles our Western pest that unknowing persons would call themthe same; indeed, the principal difference is in the length of wing of the latter, which, after all, is quite a difference where extended flight is to De kept up.

Acridium Americanum, another Eastern species, was last year so numerous in Suffolk county, Virginia, that the farmers in the neighborhood leared the Western species was upon them. It only proved destructive for a short time, however, and then seemed to disappear.

In California delipoda atrox is sometimes quite destructive to vegetation, and the Utah cricket (Anabrus simplex) sometimes does great damage

INSECT ENEMIES. There are several insects that attack grasshoppers and serve to materially lessen their numbers. The eags are devoured by a mite, Trombidium sericeum, which crawis into the holes where the eggs have been deposited and devours them in a wholesale manner. It is of a paie red color and about as large as a small grain of wheat. Another mite, Asioma gryllaria, lives upon the insects themselves in great numbers, fastening into them with their laws, eventually causing the destruction of the victim. It is much smaller than the preceding, but from its bright red or scarlet color is readily seen, generally lastened to the grasshopper near the base of the wings. The grasshopper is also attacked by two species of parasite flies, Tachina anonyma and Sarcophaga carnaria, which deposit their eggs upon different parts of the body, not accessible to the jaws of the insect. These eggs soon hatch, and the young maggots eat into the body of the insect and there leed upon the fatty parts, finally killing the infested hopper, though not until it has left its body and bur owed into the ground. They then change to pupe, from which in time the mature flies appear. As a large percentage of the grassaoppers, when examined, are found to contain the living lootless maggots of one or the other of these species it is readily seen that they must do incalculable good.

WHAT HUMAN AGENCY CAN ACCOMPLISH. At first thought we might be inclined to say, Nothing to speak of, where the insects come in such countiess myriads, even darkening the sun; but, after all, where there is a will there is a way. and every little will help. First of all, man car accomplish something by destroying the eggs, walch is done by finding the holes, where they have been laid by the parent insect, and digging them out. For example, if a bounty had been offered for the eggs at so much a pound last fall, after the invasion from the far West, men, women and children would have gone to work in earnest, and much good would have been done. Riley also suggests deep ploughing, which would cover the eggs too deeply in the ground for the insects ever to appear from them. This has been used in Texas with advantage by a correspondent of the Department of Agriculture.

In India, Syria and South Africa the natives employ smoke to oppose the invading host, which is produced from burning the dung of their animals mixed with chopped grass, straw or roots, as such fuel as wood or peat is not to be obtained. The smoke is said to be dense and stiffing, but, of course, it is only employed to keep off an invading army, and is lighted before the insects appear. The prairies are sometimes fired in this country for the same purpose, though the best use of prairie fires is in the spring, when the insects are young and have not yet acquired their Wings. Fires lighted in circles at this time will do much good, as the young insects are ourned up.

ANOTHER PLAN
is to rope the fields, which is done by hitching norse at each end of a rope 200 feet long and dragging it over the field, the hoppers are brushed to the ground, and, though they return to their work, after a lew such brushings they become disgusted and leave. Fields thus "roped" have yielded ten to fifteen bushels per acre, while other fields beside them were destroyed.

Another method is to attach together two sheets, forming a sort of bag, to which is fastened a cross pole, the two ends of waich are taken by a couple of operatives and the whole is drawn rapidly over the grain. Of course the insects will have to be destroyed by scaiding or other means atter they are captured. After all, this is but one of many devices which can be made to catch the insects; and it matters little whether we use simple contrivances or machinery, so they are

In Colorado a fire machine is reported as quite successful. It is made of speet fron, contains a bed of coals, or burning wood, and carries devices for sweeping a wide swath of locusis directly upon the flames. As many acres can be cleared

per day as a machine reaper can go over. That carching is the most available remody was illustrated recently in the State of Minnesots, where a number of counties offered bounties for insects at \$1 25 to \$2 50 per bushel. Look at the result. Bius Earth county, Minnesota, reported receipts for one day at 800 to 1,000 bushels, which were paid for and buried. Other counties make similar returns, if the reports are to be relied upon.

I think more good will result from State legislation, by the offering of bounties, than any other course that may be adopted. Make grasshoppers an article of trade, and pay for them in cash by the bushel, like corn or wheat, and they will be caught, for Yankee ingenuity to not slow where the "almighty dodar" is to be considered. I no not mean to a y that the farmers of the Northwest have not come all they could to protect them-geives, but I do say that such a course would make it a matter of interest to all-even the pays would find that they had an interest in the subject-and the result would be thousands of business of gend grasshoppers. But it will do little good for one State to offer bountles and the others to let their latmers do as well as they can alone, and to raise grasshoppers for the State that does its duty. All the invaded States should take the matter in hand as a whole, and work together, stipulating, however, that they pay for only heir own grasshoppers. We should then have united action, and if at the footing up we should flud but flity per cent of the loss averted it will be money to pocket, and the agricultural classes of

THE GRASSHOPPERS | but soon become barder. They are rarely, if ever, | future with gloomy forebodings of ruin and described in moist or wet ground lation and would again put their hands to the plough, and, with renewed courage, make up for

> Less than two months ago reports began to come in from Kansas, Nebraska and the adjacent States that the grasshopper eggs deposited last year were hatching out by the "thousands of millions," and since that time they have been maturing, and at last the remainder of the hords that were not destroyed in the field by parasitio enemies or captured and slaughtered by the farmers, have folded their tents and taken up their line of march toward the land of their fatners in the Northwest.

CHARLES R. DODGE, Assistant Entomolgist United States Department of Agriculture.

HOW THE GRASSHOPPERS CAN BE UTILIZED. WASHINGTON, June 21, 1875.

To the Editor of the Herald:— In your issue of June 17, you ask if grasshoppers cannot be utilized. It is my conviction that they can. All animal matter, when it can be cheaply procured and in sufficient quantity, can be utilized with a paying profit. As the grasshopper question is by no means solved it would be well for tion is by no means solved it would be well for those immediately interested in their destruction to call the attention of inventors to the subject and offer prizes in money for the most improved machines or methods of securing and utilizing them. In a former article, published in this city, i proposed to convert them into iertilizer, tased on my experiments made with the common grasshopper, which I found to be rich in oil and nitrogenous matter. Persons who are not accostomed to the general means of utilizing waste and seemingly worthless natural products have no conception of the means as present employed in convertion of the means as present employed in convertion of the means as present employed in convertion of the means as present employed in convertions. ingly worthless natural products have no conception of the means in present employed in converting the most disagreeaple and apparently useless substances into very valuable products. Many of the sweetest odors used in periumery are made from the most obsoxious acids by distilling them with alcohol, forming others. The manufacturing enemist can easily convert a pound of cotton rags into a pound of grabe sugar by means of sulphuric acid. Indeed, it is within the bounds of possibility to convert year waste towelling and od paper into golden syrup, and i may here add that the syrup of commerce is manufactured in this way from corn starch. I believe that the Western grasshoppers can be made into a

manufactured in this way from corn starce. I believe that the Western grasshoppers can be made into a VALUABLE ARTICLE OF COMMERCE by converting them into animal charcoal. As the Western exchanges inform us that the grasshoppers are now caught in thousands of bushels, I would recommend that they be converted when caught in quantity into animal charcoal by any of the well known processes. The difficulties attending the storage of decomposing animal matter would be obviated in this way. Animal charcoal is atways in demand, it is used in combination with oil for printers' ink, and as a pigment. As a decoorizer, fertilizer, clarifier of syrups and a bleacher of oils and many other substances, and as a polisher of horn it is not excelled.

In England miles of underground tunnels have been constructed to conderge out tunnels have been constructed to conderge smoke from factories for commercial purposes, If smoke is worth saving why are not grasshoppers?

The MODUS OPERANDI.

The conversion of grasshoppers into charcoal is an easy matter. Any old from pot or the pail may be used on a simil scale. Pack the vessel with hoppers to within an inch of the top; place over them and in contact an iron cover or piece of slate; keep free underneath the vessel as long as any smoke is seen to issue from it; allow the contents to cool before uncovering. An important fact to be observed in the manufacture of the animal brack is the exclusion of atmospheric air. On a large scale the hoppers may be burned in heaps after the manner of making wood charcoal an not surprised that some of the country editors are disposed to frown down any attempt to utilize these troublesome insects. A little over thirty-five years ago the editor of the Longon

lam not surprises that some of the country editors are disposed to frown down any attempt to utilize these troublesome insects. A little over thirty-five years ago the editor of the London Mechanics' Magazine, writing of iodine, said:—"Well, it is undoubtedly a new element; but of what use is it?" It would be difficult nowasays to say how the world could get along without it. It is the fully of every man to endeavor to find some means of utilizing the Western grasshoppers. It it can be done it will be a blessing to the States and Territories so terribly scourged, and a generous public will forrive all who may fall in the laudable endeavor.

It is my conviction that the Colorado beetle cannot be collected in suncient quantity to be utilized. It has been stated by some of the Western papers that I have recommended the grasshoppers as an article of diet. This is not true. I could not be guilty of making such a recommendation even to uncivilized people, not to speak of the enlightened condition of the Western farmers.

That the grasshopper is not one of the seven in the inneteenth century it is my intention to demonstrate by the exhibition of actual economic products made from them. At the fortacomia, Centennial I shall prepare samples on a sufficiently large scale to exhibit, printers ink Chinese lak, charcoal for puritying purpose, charcoal as a fertilizer and bleacher, as well as a decodorizer and poilsher. If the agricultural interests of the country are to be interfered with from season to season by these pests the farmer has but to resort to easy modes of collecting them, and in quantity, they can, as I have above suggested, be reduced to animal charcoal, for which there is always a market. THOMAS TAYLOR.

### THE GEOGRAPHICAL CONGRESS.

ARRANGEMENTS FOR THE FIRST MEETING OF THE GEOGRAPHERS IN PARIS-THE AMERICAN DELE-GATES ARRIVED IN THE FRENCH CAPITAL.

The arrangements for the Geographical Conress convened by the French Geographical Socloty are being rapidly matured. The day for its manguratory meeting is not as yet fixed, but it is decided that the Congress will commence its sittings toward the close of July or the beginning of August. Connected with it there will be an exposition of articles bearing upon geographical science, such as surveying instruments, maps, models, coaris, improvements in travelling equipage, &c.

THE REPRESENTATION OF THE NATION Every civilized nation has been invited to send Commissioners to the Exposition, and delegares or representatives to the Congress. They have all esponded to the invitation with the exception of Great Britain and the United States. The objection on the part of the two latter was that the scaeme did not originate with the French government, that it was a private and not a public enterpriss, and that consequently the response could not properly be made a national one. Our government, nowever, undertook to recommend our societies to send delegates.

The English government refused to appoint a Commissioner, but agreed to inderse any person whom the Geographical Society of London might indicate as its terresentative, provided that it (the government) would be saidled with no portion of the expense. These conditions the London Geographical Society refused to assent to, and thus the question stands at present so far as it is concerned. The American Geographical Society lost no time in appointing representatives, and their names were formally announced by the State Department. Major General Cambrid, one of the delegates appointed, was arrived in Paris and has had several interviews with Baron Relic, the Secretary of the Paris Geographical Society Commissioner, but agreed to inderse any person

their manners were formally annualized by the whole is drawn so the insects will go or other means all, this is but one sade to catch the whether we use mery, so they are reported as quite thron, contains a indicating the thron, contains and carries devices, in go over, in go, in the same contains and the contains an

# LOCOMOTION IN LONDON.

Slow and Rapid Transit in the British Metropolis.

CABS, OMNIBUSES AND STREET CARS.

Every Day Life of the Cabby and

the 'Busman.

LONDON, June 1, 1875. Sitting in my watchtower in a northerly suburb of this great metropolis, somewhat after the iastion of Teuxeisdröch over the Wanngasse of Wissnichtwo, I am tempted to sublime emotions. Hampstead is a couple of mhes behind, dark and quiet, for it is night time, but in front and to right and left the illimitable city glooms and gleams. From the gloom and the gleam comes that dull yet restless roar of life which belongs alone to London. Night and day the tides of labor roll and roar, and you may hear them afar, from this northerly watchtower of mine, as a mere inarticulate moan. It is the noise of sorrow and of travail-it is the half-heard refrain of humanity's splendid march. As a child with a shell at its ear makes its faint ear-tone assume this or the other measure, or murmur this or the other story, so you may draw what fancy and what feeling you will from the distant hum of the overgrown and overcrowded city. ASPECTS OF STREET LIFE.

There is nothing which is not splendld or great

when in multitude, and there are few things which do not acquire a charm by distance. But come down into the streets and ascertain the reason for this perpetual murmur of life. Walk, ride, drive about London for a day, and you are a dull man indeed if at the end of your wanderings you have not discovered that one particular style of vehicle is mainly answerable for that "noise of the udes of urgent life," which stirs every newcomer to London, and which costs him many a neadache before he grows accustomed to it. That particular style of vehicle is the "growler." The growler is an oblong box on four wheels, and it has a sort of well for the reception of the legs of its occupants. It has two doors which never fit, and in each door is a square of glass enclosed in a sliding frame, and that sliding frame also never fits. That the growler is furnished with springs is obvious on the most casual observation. That the springs were ever in any solitary instance known to act in any appreciable degree you will find no man mendacious enough to assert. The growler is grawn by one horse, who is as a rule an animal of a depressed habit of mind, given to boring, and always en

gaged, when in motion, in a close inspection of his own knees. The growier's mission is to carry any number of persons, not exceeding half a dozen or so. It cannot be ordered from its stand for any less sum than one shilling; but for that shilling it may be legally made to drive two miles. and its authorized scale of charge thereafter is sixpence per mile. It is a noisy and a cumbrous venicle; but it exists in enormous numbers and is in much request. It is technically known as a "four-wheeler," the term "growier" being resented in its behalf by its driver as conveying a slanderous and uncounded imputation. Whatsoever statistics appear in the course of this article relate to the results arrived at by the police authorities at Scotland Yard on the sist of December last, and at that date there were 4,413 "grøwiers" in active operation in the metropolis. The authorities of the hackney carriage departments at Scotland Yard not one thing in connection with the growier. It is that the uses of that vehicle are chiefly those of pleasure and of seminine business. The four-wheeler takes parties of four or thereabouts to the theatre or to concerts, and brings them home again, and it is much used in shopping by ladies whose husbands are unsole to maintain a carriage. and its authorized scale of charge thereafter is

much used in shopping by ladies whose husbands are unable to maintain a carriage.

THE "HANSON" CAR

affords a much more convenient, a much more meiers and a much more expeditious means of transit. It is only salf as noisy as the growler, and is, as a rule, better borsed. The hansom is an almost purely business vehicle, and is business to make the most of their money occasionally contrive to make a hansom carry three, though, as a rule, one portly person fills the little vehicle very fairly. There are 3,776 of these conveyances in London, and each is incassed to demand the rate of fare already mentioned with regard to the growler. If the reader will bear with a few figures he may form some approximate notion of that perpetual roll and roar which reaches this northerly watchlower at all hours of the twenty-four and at all seasons of the year.

WHO OWNE THE COACHEST

The hackney carriages of London are all in the hands of private proprietors. One or two attempts which have been made to start a company on a large scale have from one cause or another islien through. Here and there the criver of a hackney carriage is the owner of horse and venicle; but such cases are comparatively rare. The wast majority of dirivers are either servants or, in a small way, contractors. The general raie is that the cab driver hires horse and venicle; but such cases are comparatively rare. The wast majority of dirivers are either servants or, in a small way, contractors. The general raie is that the cab driver hires horse and venicle for a daily sum and that daily sum is generally inverve einimings. That, accepting the figures of the sist of becomber last, represents a usuly amount of nearly five thousand pounds exhended in hire at first hand and, allowing one driver the very moderate sum of are and conversance, you refer the theory of the sum of are and conversance, you refer the two populations of London expend in his particular kind of traffic very pearly two millions stering. By the burness the two populations of London expend in his particular kind of traffic very pearly two millions stering. By the burness the two populations of London expend in the sparticular kind of traffic very pearly two millions stering. By the burness the two working of the very nearly two millions stering. By the burness the two working double-tides, and being driven by one may during the day and by another during the night. The number of cab drivers ongaged in London during the night is a trifle over 2,000. The number of horses employed in the whole each traffic is summer polyce in the whole each traffic sestimated at 3,000. The total amount of ground covered by the whole body of vehicles in the course of a year may be sted down as 30,000,000 of miles-reckoning that an average of ninepence per mile is paid by passengers, finat, I suppose, will be very near toe average, if the fact that a great them to solve the mil

way in inextricable labyrinths of greet, or he will mistake the address als have has given him and will drive cheerfully in the opposite direction; or ne will declare that his horse has cast askee or that the can has loss a lineauin or that the traces are unsound or that he remains are broken, and for the scene of any or all of these decional annovances he will choose the worst of possible places.

In point of fact it is scarcely too much to say that

has brought its last and worst Nemcels upon itself in the form of the London cabman. The Frankenstein of modern progress has evolved a terror and is raised by that terror with a rod of from I know that there are large showances to be made for cabby. I know that, considering his temprations, be is marvellously sober. I grateually seknowledge that he is even occasionally civil i can swen hopefully trust that with the safeth of end of the his bases constraint arrange.

tic and mileage may become somewhat modified. But at present, as an honest chronicler, I can only say of him that he ha wonder and a fear.

How the "Carbies" are controlled.

To do the police justice there is one part of their duly in connection with the cab world which they do really mose refliciently and carcinly disclarage. But for their painstaking attention to duty many accidents would of necessity occur. An officer is appointed to cover a certain district, within the limits of which he thoroughly examines every nackney carriage which ples for hir, dismissing from the rank such vehicles as are undit for the public service. But, as there was of old a Cave of Adullam wherein such as were to debt, such as were in distress and such as were bitter of soul might saiety gather, so there is in the York road. London, a place of refuge for such of the cab-driving iraternity as are especially weak in point of horsefesh or especically ramsuackie with respect to shalts and wheels. It is a fact not at all well known to Londoners themselves that in a forior and dreary field of that York road there is a daily congregation of the worst cabs in London, a gancering of the rejected of the proble ranks. Who raceives the fees I know not, sut a charge of one penny is made before any vehicle its permitted to onter that sorrowful ground. There these deplorable convevances may be hired at the mitted to onter that sorrownul ground. There these deplorable conveyances may be hired at the customary rates. They ply on no cab stand, and are, therefore, outside the rule of Scotland Yard. Grumio, describing his master's mount, in the "Taming of the Shrow," has bit upon no disease, mistortune or snortcoming common to horsedesh which is not exemplified by one animal or other in that field off the York road. Sterne, in that charming chapter in "The Sentimental Journey." wherein he defails the stery of his purchase of a carriage when en route for Rouen, has indicated no condition of vehicular breakdown which is not there illustrated. If the ghosts of the sad and sorrowful account of the york has defined by night.

THE GENERAL OMNIBUS COMPANY.

London lives in such a perpetual conduction of

by night.

THE GENERAL OMNIBUS COMPANY.

London lives in such a perpetual condition of hurry that its cab accommodation, ample as it might seem, is sufficient for scarcely a time of its requirements. We boast the possession of Laso public venicles of another character. Those vehicles were long ago named, by a happy inspiration, omnibuses. The joynal Briton, guiltless for the most part of any knowledge of the classed tongues, is content to abbreviate the descriptive term "omnibus" to the unmeaning term "bus," but with the Cockney, as indeed with the inhabitant of all large towns here, the "bus is a great institution. It is a somewhat unwieldy vehicle, and as a rule is constructed to carry six-andiventy passengers. Toward every great centre of traffic in London these ponderons carriages travel from early morning until manight, and from these centres they radiate in every direction. The General Omnibus company is responsible for most of them, and according to that company's last half-yearly report it asone employs 8,025 horses and holds working stock valued at £601,364. Its investments in government and other stock are over three quarters of a million surling, and the number of passengers conveyed by it during the year 1874 were nearly filty millions.

The cost of horses' renewal in the last half year

vestments in government and other stock are over three quarters of a million sterling, and the number of passengers conveyed by it during the year 1874 were nearly allty millions.

The cost of horses' renewal in the last half year was over £30,000, and an economy of £1,300 was effected by restricting the use of beans to sick norses and others needing especial care. The increase in the cost of provender for a single year, owing to a rise in the price of hay, amounted to no less than £22,006 las. 6d. The discerting reader will again perceive that we are rather in a large way of business in this metropolis.

The employment of tramway cars in London is a new feature of the metropolitan traffic, and not altogether a popular one. There are at present three tramway companies, none of which have, so far, been permitted to enter the city proper. It is doubtain whether it will ever se held expedient to admit them, for, despite of all attempts to relieve the overcrowded streets. London up to this time remains, as the hospital returns only too sadly and too readily brove, a yery dangerous place to go about in, and the quiet, swift and smooth-going tram-car is but a new element of danger. The maximum number carried by these cars is forty-six. In districts where the streets lie at a considerable gradient the conveyances are of lighter and smaller build.

Every driver and conductor is compelled to apply annually at the Hackney Carriage bepartment at the Central Police Office at Scotland Yard are, like most official authorities, jealous of publicity, but I may say that the amount received by them yearly for licenses granted is over£25,000, and that an average of 1,233 new men have, during the pist ten years, annually presented themselves with applications to be licensed. The badge dispisying the number of the license granted is worn by each omnibus conductor. It speaks well for the men that the number of the license granted is worn by each omnibus conductor. It speaks well for the men that the number who lorfelt this badge dri

out it is a lact, and it aways has occo, that all these men are humorists. In this matter the jous driver and cab driver are also like their respective vesicles. Caby is light, agile, smart, irritating; the 'bus driver is solid, ponderous, a trifle slow. When it is necessary ion caboy to swear—and he thinks it necessary very very often—i designt to resemble him to those swith this craft which narmed the spanish galleons of yore. When the driver of an omnibus religious of yore. When the driver of an omnibus religious of yore. When the driver of an omnibus religious of yore. When the booms tae skies darken. The pages of Punch bave made many of the drolleries of the two classes immortal, it would not be uniar to say that Punch has got one-half his pictorial fun out of these people.

The 'bus drivers and conductors are salaried servants and are not well bad. As a consequence the companies employing them lose a good deal. No scheme of perfect action has yet been devised to check the receipts of the conductor, and the gallant commissioner at Scotland Yard who is at the head of the department told me the other day that he did not think any perfect check possible. But for the most bart the men are honest and well conducted, and a tendency to strong waters and strong language is the worst fault which can, as a ruie, be charged against them.

# BOARDERS WANTED.

2 OR S GENTLEMEN CAN HAVE ROOMS BREAK-two blocks from ferry; private family; dinner sundays, price \$3.

\$5 TO \$6 PER WEEK.—BOARD, WITH NICE Rooms; also table Board; English family. No. 333 West Thirty-flith street.

\$5 TO \$7 PER WEEK-LARGE SQUARE FROM suitable for married couples or gentlemen; house com modious and cool. 301 East Phirty-third street.

\$6 TO \$8 PER WEEK FOR ROOMS, WITH SOARD families accommodated equally low, not and cold water in rooms. 48 South Washington square, third door from MacJougal street.

200 STREET, 1.9 EAST.—HANDSOMELY FUR.
O nished Rooms, with first class Board, for families or gentlemen: all home comforts: summer prices: first class neighborhood and location; also day boarders. 20TH STREET, W. ST, 307, -HANDSOMELY FUR. 20 nissed Hooms, with Board, singly or en suite; ample closets; hot and cold water; American family; terms 56 to 58 per week.

Bo to \$5 por week.

21 East TENTH STREET, NEAR BROADWAY.—
21 A partor Floor, hot and cold water: also single Rooms, with or without Board. 40 EAST NINTH STREET, NEAR BROADWAY.-TO-nen and wives: single nooms suitable for gentle-men and wives: single nooms for gentlemen; transient and day boarders accommodated.

41 Rooms, handsomely jurnished, from \$3 to \$10 a week: Board in immediate neighborhood.

158 WEST TWENTY-FIRST TREET.—TO SINGLE room, with Board if required. 162 EAST THIRTY-SECOND STREET, NEAR LEXinen or housekeeping; \$5 per week.

213 EA T THIRTY-SEVENTH STREET, NEAR
a first Floor, turnished, with satin furniture, suitable
for two ladies, or unfurnished.

A.—MAISON PARISIENNE, 38 AND 49 EAST
A. Twelfth street, between Broadway and University
place.—Riegant Apartments for families and single gentlemen at summer prices.

A IRY, LIGHT ROOMs—NEW ENGLAND HOTEL,
corner Bowery and Bayard street; newly turmished; lodgings 50c.; weekly \$3: for gentleman only. A ROOM TO YOURSELF, 20C. 35C AND SOC. 31 5) And \$1 30 per week; gentlemen and families. Frankfort House, corner of Frankfort and William streets upen all night.

A T SUMMER RATES-LARGE AND ELEGANILY curtished Rooms for transient and permanent parties families: restaurant connected; no extra charge for private table. Robinson Hall, sixteenth street, near Broadway.

Broadway.

BELMONT HOTEL, FULTON STREET, NEAR Broad way.—Saropean plan: Rooms Sic., upward; new family scome; Nears at low prices; ladios' and genticines's dining course open Sandaya. ticmen's dining rooms open Sundays

HOTEL BRANTING, MADISON AVENUE, CORNER
of Vity-eighth street, -Coolest place in the dity;
elevator and all improvements; first class; table d'hote;
terms moderate.

HOTEL ST. GERMAIN, BEGADWAY, FIFTH AVEnue, Twenty-second street, -Superg location; house
facing three streets; Rooms all front; \$5 per day; nuropean plan, \$1 to \$5; elevator, baths.

WM. G. TOMPKINS.

SUNNIT HOTEL, 55 HOWERT, ON THE SUROPEAN PLAN.—Rooms by day, week or month; 50c., 50c., 75c., 81 per night; weekly prious reduced.

ARTIRETE HURKERT, Practicro.

COUNTRY BOARD.

AT SEA CLIFF, L. L-MRS, E. HOYT, HAVING EN-larged and improved her new house on summtay-ens, user the great Tabernacie and within a few min-utes' walk of the dock, is now ready to receive boarders by the season or day; accommodations and Board first

A DELIGHTFUL HOME, ON SOUTH SHREWSBURY Board: highest returences given and required. Apply at 44 West Forty fourth street or 207 East Seventeenth st.

A. -FIRST CLASS BOARD CAN BE GIVEN WITHIN A two miles of Plainfield at moderate prices; private house; good garden; fine views. Apply at 38 East Twelfth street or 15 William street, New York. AT PLEASANTVILLE, 15 BOURS BY HARLEM Rairond-Large house, large, siry Rooms; high ground; near depot; good, substantial Roard at \$8 per week. Particulars at MONEMAN's harness warerooms, or or N. MABEE, Picasantville, N. Y.

AN ELEGANT COUNTRY SHAT AT HASTINGS IS A now open for the accommodation of first class boarders wanting rooms, singly or en silict the house contains every modern improvement magnification from the roundings fine view of the river checked and represent the silication and vegetables in abundance, silicating boat in and fishing; ample sanding for horses. For full particulars call on or aldress Mrs. LITTLE, 76 Fifth av.

At MORAISTOWN, N. J., 20 MINUTRS' DRIVE FROM depot, 18 hours by rail from New York, a rew destrable froms and a furnished Gottage, with Board, or reasonable terms, in the Grand View House; pure mountain art; excellent stabiling; no mosquitos. Apply on the premises, or at 45 Fifth avenue.

DOARD.-FIRST CLASS BOARD WANTED BETWEEN New haven and New Loudon, near the Sound: large, airy Rooms and no mosquitoes. Address, with terms, &c., H. B. b., Horald office. BOARD CAN BE OBTAINED AT A FARM HOUSE in Sullivan county; terms \$7 and \$8 per week; plenty of milk, eggs, poultry, truits, &c.; good drives and ilshing; accommodation for horses; railway to New York daily. Apply to Mr. ALCOTT. Bis Murray street, New York, or address W. H. CALDWELL, Phillipsport, sullivan county, N. Y.

BOARD AT WILLOW LAKE-IN EVERY WAY accommodation for carriages; it is one of the finest read-dences in Queens county. Address R. ROGRES, Locust Valley, k.

BOARD ON THE SOUND,-FINE FISHING AND 1) use of boats free; excellent table, supplied with plenty of fresh milk and eggs, terms moderate. Apply at 3.7 West Twenty-second street.

BOARD-ON A FARM IN ROURLAND COUNTY, ONE mile from depot, 1½ hours from city by rait; boating and bathing: house has all modern improvements tacke and appointments first class. For particulars and puctograph call at 12 West Twenty-sixth street.

DOARD AT A FARM HOUSE, TWO HOURS FROM D the city by Eric Railway and 15 minutes' walk from depot; location unsurpassed; large lawn and plenty of shace. Address Dr. WM. HORTON, Craigville, Orange county, N. Y.

county, N. Y.

DOARDERS WANTED—AT A FARM HOUSE, ABOUT

Do miles from New York city, in Ulster county, near
the mountains: number limited to 10 or 12. For particulars apply to or address h. DIVER, 380 Broadway, or N.
Elilland, Mount Vormon, N. Y.

CAN ACCOMMODATE WITH BOARD, AT PORT Washington, L. E., 22 unles from New York, 5 or 6 persons, 1 or 2 small chaldren; private famility: no other locaters; terms 38 and 39; children \$4; alry sleeping Rooms; use of parlor, Reier to A. W. SMITH, 3.5 West Fitzenth street, for two days, after 6 P. M. COUNTRY BOARD ON THE BANK OF THE HUD-

O son, opposite Pourhkeensie,—Magnificent view of Poughkeepsle, the river and surrounning country; high ground, good water, plenty of fresh milk, berries, vegetables, &c.; large and any Booms; first class spring beds; carriage house and stables; charges moderate, Reirence,—tev H. D. Ganse, No. 15; East Seventy-third street. Address L. M. MEAD, Highland, Ulster County, N. Y.

COUNTRY BOARD-AT MODERATE COST, ON a farm IS miles from Boston, on Providence Bailroad; plenty of shace; tresh milk and vegetables; airy rooms free carriage to and from depot, Address box 101 Post office, Stoughion, Mass. COUNTRY BOARD-AT A FARM HOUSE IN SULLI. van county; terms moderate; good table; a pleasant, healthy location; good water; pure mountain alr. Address J. WILKENS, 124 Park avenue.

COUNTRY BOARD WANTED-ON THE SOUND, BAY or Hudson, by a man and wife, with infant for the season; coating and bathing; one hour from City Hall; ferms must be moderate; in private family. Address S. K. P., 30 thomas street.

COOD COUNTRY BOARD—IN A PLEASANT,
Thealthy locality, 75 miles from New York city; near
depot; price \$6 to \$7; no chilis nor mosquitoes; city reference given. Address c. C. NOXON, Lagraugeville
Post office, Dutchess county, N. Y. WANTED-GOOD COUNTRY BOARD BY GENTLE man and wife; place must be accessible by steam, boat, and not more than one hour and a half distant address AMERICAN, box 179 Herald office.

SUMMER RESORTS.

JENKINSON'S HOTEL, HIGHLANDS, N. J., will be open for the reception of guests June 15. JAMES JENKINSON, Proprietor. A.-PREMIUM POINT HOUSE NOW OPEN; 10 minutes ride from New Rochelle depot by New Haven Raticoad; delightfully situated on Sound; flue ses bathing, boating, fishing; no chills and fever; no masquitoes. Apply at Point, or, by letter, to A. D. PLYMPTON, 25 East Forty-sixth st. corner Madison av.

A CKERLY HOUSE, NORTHPORT, L. I.—PLEAS-antly situated, on the finest harbor on Long Island good still water bathing, rowing, saining, &c. no bar-torias \$5 per week. JAMES AUK SHLY, Proprietor. BELMONT HALL, SCHOOLEY'S MOUNTAIN, MINeral Springs, Morris county, N. J.—This fashionable
summer retreat will open June I. Superior accommodations for families: pure mountain air plenty of shads
and irult; no mosquitoes. For particulars address D. A.
CROWELLS

CROWELL.

CATSKILL MOUNCAINS.—DEANT HOUNE, SITUated two mines from the landing, with accommodations for 330 guests. Parties wishing to engage Rooms
for the season must apply early. For terms, &c., address
A. J. GRANT, Proprietor, Catskill, N. Y.

COLEMAN HOUSE, FAR ROCKAWAY, L. L-H open for the season: first class accommodations for permanent and transient boarders.

EAGLESWOOD PARK HOTEL-DELIGHTPULLY situated on the shore at Perth Amboy, N. J.; Matrains by Whitehall, Liberty, Cortlandt or Desbrosses; tares 26c. to 50c.; groves, inway, dise drives, remainte wasks; minoral springs; bathing, boating; all the popular amusements; fine Rooms, with first class table; terms low; come and see, or send for circular, H. B., KENT, Proprietor, 16 East Twenty-third street, Madison square, New York.

E Decomb House, New London Harbon, on the Sound; 145 hours from New York; gas, telegraph, bathing, fishing, sailing; no mosquitoes; \$3 per day; \$10 to \$50 per week. Circulars Address Post office, New London, Conn.

GLEN HOUSE, NEW HAMPSHIRE. THIS PAVOR He resort open from June 17 to October L 1873.
W. &. C. R. MILLIKEN, Proprietora.

HOTEL FENIMORE, COOPERSTOWN, N.Y., open for the season.
JAMES BUNYAN, Proprietor. JAMES BUNYAN, Proprietor.

KITTATINNY HOUSE, DELAWARE WATER GAP, miles west of New York via Morris and Essex Railroad; send for circular.

M. A. BRODHEAD & SONS.

LAWRENCE HOUSE, CLAVERACK, N. J., WILL
open for the reception of guests, July 1.
HANRY LAWRENCE, Proprietor,

HANRY LAWRENCE, Proprietor,

MONTOWESE HOUSE, BRANFORD, CONN.—PHIS
well known and popular resort, situated on Long
Island sound, 7 miles from New Haven, on the Shore
line road, noted for its fine bathing, issuing, beating and
charming drives, reopened June 20; charges moderate
address WILLIAM BRYAN, Jr.

NIAGARA. MONT EAGLE HOUSE, SUSPENSION SRIDGE, N. Y.
This house is now open and offers unusual inducements to tourists; terms \$3 per any, \$2 to \$15 per week. Begare designed for the Mont Eagle should be checked to schapen RIVER VIEW.-PLEASANT ROOMS AND GOOD to but the times. Address TAFF BOUSE, Cornwall, of Hudson, N. Y.

SOUTH SIDE HOFEL, AMITYVILLE, L. I. OVER-looking the great South Bay, is now open for the reception of suests; good boating, sathing and flating sail locats attached to the house for the accommodation

of guesta.

CUMMER BUARD—AT THE SOUTH ORANGE
Mountain House, one hour from city, on Morris and
Essex Railroad, five minutes from deput; house thoroughly renovated and newly tornished; pure mountain
air; picture-que drives; all the luxuries of country life;
line stabing; ferms moderate. Apply to or address
PROPRIETOR, South Orange, N. J.

THE VARDICT.
IF BENDERED TO-DAY, WILL BE ANAOUNGED LYRA EVENING TELEGRAM.

UNITED STATES HOTEL, SARATOGA SPRINGE, will open for reception of guests June 1, 1878 JAS M. MARVIN, Proprietor. Diagrams of rooms will be sent on application.

W HITE-TONE HOUSE, WHITESTONE, L. L.—
W Newly furnished throughout; transient Board, \$5
per day; weekly, \$15; distance 12 miles, by steamer
Thomas P. Way, irom foot of wrand street, at \$P, M.;
East Thirty-third street, \$118 P. M.; also by Flushing,
North Side and Central Emiroad from Bunjer's Points
18 times daily.

R. D. TUCKER.

HOUSES, ROOMS, &C., WANTED. In this City and Brooklyn. A DVERTISER WANTS A FRENCH FLAT OF SEE FROMS OF MOTEO, on first floor; reference given, Address DOCTOR, box 3,540 Cost office.

INSTRUCTION.

A LL SUMMER.—MESSES DOLBEAR, 1,183 BROAD way, having large, cool rooms have made special arrangements to give besons, day and evening, all sumor. in Susmess writing. Bookkeeping and other braiches. Teachers will receive extra attention on reasonable terms. Boys prepared practically for full business in one quarter. \$57.50 PER QUARTER; NO EXTRAS: BOYS prize; testimonials from Bayard Taylor, Colonel Hinton Ac. WITHIN C. SHORTLINGE (Harvard, A. M.), Media, Pa.

THE IRISH WORLD. The Irish World this week contains illustrations of the American Rifle Team in Ireland

Statue of Archbishop MacHale. unveiled at Tunn on the Sth of June—the Semi-Center nial of his disnupric. The articles on these satisfies are well written and of rare interest. Procure cucies saring